NMR STUDY OF SCHIFF BASES DERIVED OF L-α-AMINO ESTERS

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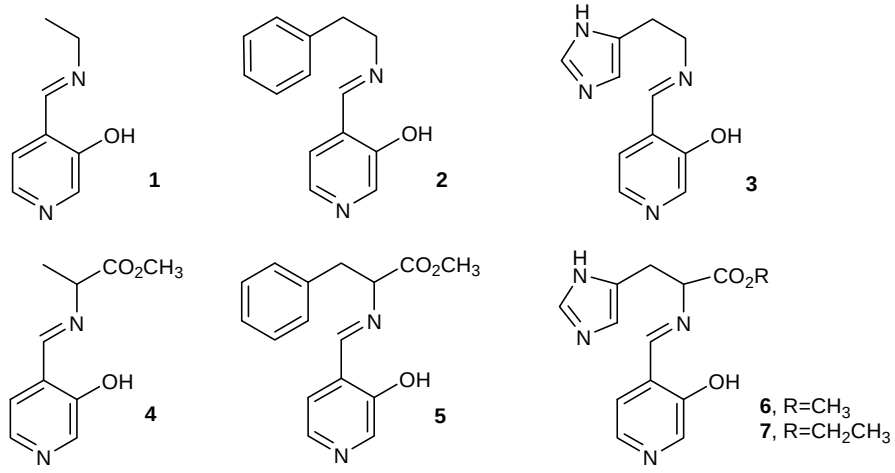
Schiff bases derived from *o*-hydroxyarylaldehydes have attracted much attention because of their tautomeric properties, hydroxy/imino *vs*. oxo/enamino and zwitterionic forms.

We present here our research on new Schiff bases derived of 3-hydroxy-4-pyridincarboxaldehyde and L-α-amino esters and the structurally related amines lacking of the ester function. These compounds have been studied by multinuclear magnetic resonance spectroscopy (^{1}H, ^{13}C, ^{15}N) in solution and ^{13}C CPMAS. The results are supported by DFT theoretical calculations at the B3LYP/6-31G** level.



The existence of the two tautomers, hydroxy/imino and oxo/enamino, in acid media (TFA) has been demonstrated proving that the proton transfer is assisted by protonation of the pyridine ring, in the same way as it occurs in PLP (pyridoxal-5'-phosphate).

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